

Amendments to the Claims

Please amend claims 1, 7, 16, 24, 27, 34 and 40. Please cancel claims 3, 4, 5, 6, 8, 10, 11, 12, 13, 30, 31, 38 and 39. Please add new claims 41-53. The currently pending claims after amendment are listed below.

1. (Currently Amended) An electronic camera apparatus, comprising:
- an electronic optical sensing apparatus, said electronic optical sensing apparatus sensing optical images and converting sensed images to an electronic signal;
 - a buffer memory;
 - a video storage medium interface for storing video images captured by said optical sensing apparatus on a storage medium; and
 - a controller which operates said electronic camera apparatus in at least one mode, said at least one mode including a first mode wherein said controller concurrently: (a) causes said video storage medium interface to store motion video captured by said optical sensing apparatus on a video storage medium at a first resolution, and to (b) temporarily store stores video frames captured by said optical sensing apparatus in said buffer memory; and ;
wherein said controller, responsive to a first user command, saves at least one frame from being temporarily stored in said buffer memory in a persistent form at a second resolution, said second resolution being finer than said first resolution, said first user command being received after said electronic optical sensing apparatus captures said at least one frame being saved; and
wherein said controller automatically deletes each respective said video frame captured by said optical sensing apparatus from said buffer memory without saving the respective said video frame in a persistent form at said second resolution if a said first user command for saving the respective said video frame is not received before a pre-determined event occurs;
- wherein said controller, responsive to said first user command, saves a user-selectable portion of the contents of said buffer memory in a persistent form at said second resolution, said user-selectable portion being potentially less than all of the buffer contents; and

23 wherein said user-selectable portion of the contents of said buffer is determined by playing
24 the contents of said buffer back to the user on a display of said camera, and receiving a user
25 selection corresponding to a beginning frame to be saved in said persistent form.

1 2. (Original) The electronic camera apparatus of claim 1, wherein said electronic optical
2 sensing apparatus, said buffer memory, said video storage medium and said controller are
3 mounted within a common hand-held camera housing.

3-6. (Cancelled)

1 7. (Currently Amended) The electronic camera apparatus of claim 1, wherein said controller
2 operating in said first mode stores every Nth video frame captured by said optical sensing
3 apparatus in said buffer during a respective temporary period, ~~where $N > 1$~~ N being a user-
4 selectable parameter, wherein at least one user-selectable value of N is greater than 1.

8. (Cancelled)

1 9. (Original) The electronic camera apparatus of claim 1, wherein said buffer is organized as
2 at least one circular buffer in which the oldest stored frame is overwritten with a new frame when
3 the new frame is captured.

10 - 15. (Cancelled)

1 16. (Currently Amended) A method for operating an electronic camera apparatus, comprising
2 the steps of:

3 capturing a sequence of optical images with an electronic optical sensing apparatus;
4 storing motion video images from said sequence of optical images on a motion video
5 storage medium at a first resolution;

6 temporarily storing image data from said sequence of optical images in a buffer, said step
7 of temporarily storing image data being performed concurrently with said step of storing motion
8 video images, said image data in said buffer being continuously overwritten by new image data
9 from said sequence of optical images;

10 making a decision to save at least one recently captured image, said decision being made
11 by a human user after the at least one recently captured image is captured by said electronic
12 optical sensing apparatus; and

13 responsive to a user command issued by said human user, said command being responsive
14 to making said decision to save at least one recently captured image, said command being issued
15 before said at least one recently captured image is overwritten in said buffer, saving at least some
16 images from being temporarily stored in said buffer including said at least one recently captured
17 image in a persistent form at a second resolution, said second resolution being finer than said first
18 resolution;

19 ~~wherein said step of saving at least some images from said buffer in a persistent form~~
20 ~~comprises saving a user-selectable portion of the contents of said buffer memory in a persistent~~
21 ~~form at said second resolution, said user-selectable portion being potentially less than all of the~~
22 ~~buffer contents; and~~

23 ~~wherein said user-selectable portion of the contents of said buffer is determined by playing~~
24 ~~the contents of said buffer back to the user on a display of said camera, and receiving a user~~
25 ~~selection corresponding to a beginning frame to be saved in said persistent form.~~

1 17. (Original) The method for operating an electronic camera apparatus of claim 16, wherein
2 each video frame captured by said optical sensing apparatus is stored in said buffer during a
3 respective temporary period.

1 18. (Original) The method for operating an electronic camera apparatus of claim 16, wherein
2 every Nth video frame captured by said optical sensing apparatus is stored in said buffer during a
3 respective temporary period, where $N > 1$.

1 19. (Original) The method for operating an electronic camera apparatus of claim 18, wherein
2 N is a user-selectable parameter.

1 20. (Original) The method for operating an electronic camera apparatus of claim 16, wherein
2 said buffer is organized as at least one circular buffer in which the oldest stored frame is
3 overwritten with a new frame when the new frame is captured.

1 21. (Original) The method for operating an electronic camera apparatus of claim 20, wherein
2 said buffer is organized as a plurality of circular buffers, each circular buffer storing frames at a
3 respective resolution, a first circular buffer storing frames at a higher resolution than a second
4 circular buffer.

1 22. (Original) The method for operating an electronic camera apparatus of claim 16, wherein
2 a resolution of frames stored in said buffer is a user-selectable parameter.

1 23. (Original) The method for operating an electronic camera apparatus of claim 16, wherein
2 said step of saving at least some images from said buffer in a persistent form comprises saving the
3 entire contents of said buffer memory in a persistent form at said second resolution.

1 24. (Currently Amended) The method for operating an electronic camera apparatus of claim
2 16, wherein said step of saving at least some images from being temporarily stored in said buffer
3 in a persistent form comprises saving a fixed portion of the contents of said buffer memory in a
4 persistent form at said second resolution, said fixed portion being less than all of the buffer
5 contents.

25 - 26. (Cancelled)

1 27. (Currently Amended) A method for operating an electronic camera apparatus, comprising
2 the steps of:

3 capturing a continuous stream of optical images with an electronic optical sensing
4 apparatus;

5 temporarily storing image data from said continuous stream of optical images in a circular
6 buffer, said circular buffer being continuously overwritten by new image data from said
7 continuous stream of optical images;

8 making a decision to save at least one recently captured image, said decision being made
9 by a human user after the at least one recently captured image is captured by said electronic
10 optical sensing apparatus;

11 responsive to a ~~user~~ command issued by said human user, said command being responsive
12 to making said decision to save at least one recently captured image, said command being issued
13 before said at least one recently captured image is overwritten in said circular buffer, saving at
14 least some image data from said buffer including said at least one recently captured image in a
15 persistent form; and

16 automatically deleting each respective said optical image from said circular buffer without
17 saving the respective said optical image in a persistent form if a said command issued by said
18 human user for saving the respective said optical image is not received before the image is
19 overwritten with subsequently captured image data

20 ~~wherein said step of saving at least some image data from said buffer in a persistent form~~
21 ~~comprises saving a user-selectable portion of the contents of said buffer memory in a persistent~~
22 ~~form, said user-selectable portion being potentially less than all of the buffer contents, and~~
23 ~~wherein said user-selectable portion of the contents of said buffer is determined by playing~~
24 ~~the contents of said buffer back to the user on a display of said camera, and receiving a user~~
25 ~~selection corresponding to a beginning frame to be saved in said persistent form.~~

1 28. (Original) The method for operating an electronic camera apparatus of claim 27, wherein
2 said step of saving at least some image data from said buffer in a persistent form saves at least
3 some frames at a first resolution, said method further comprising the step of:
4 storing motion video from said continuous stream of optical images on a motion video
5 storage medium at a second resolution, said first resolution being finer than said second
6 resolution, said storing motion video step being performed concurrently with said temporarily
7 storing image data step.

1 29. (Currently Amended) The method for operating an electronic camera apparatus of claim
2 27, wherein every Nth video frame captured by said optical sensing apparatus is stored in said
3 circular buffer during a respective temporary period, N being a user-selectable parameter, wherein
4 at least one user-selectable value of N is greater than 1.

30 - 33. (Cancelled)

1 34. (Currently Amended) A program product for controlling the operation of an electronic
2 camera apparatus, said electronic camera apparatus having an electronic optical sensing apparatus
3 for sensing optical images and converting sensed images to an electronic signal, said program
4 product comprising a plurality of processor executable instructions recorded on signal-bearing
5 media, wherein said instructions, when executed by at least one programmable processor of said
6 electronic camera apparatus, cause the apparatus to perform the steps of:

7 capturing a sequence of optical images with said electronic optical sensing apparatus;
8 storing motion video images from said sequence of optical images on a motion video
9 storage medium at a first resolution;

10 temporarily storing image data from said sequence of optical images in a buffer, said step
11 of temporarily storing image data being performed concurrently with said step of storing motion
12 video images, said image data in said buffer being continuously overwritten by new image data
13 from said sequence of optical images; and

14 responsive to a user command, saving at least some images from being temporarily stored
15 in said buffer in a persistent form at a second resolution, said second resolution being finer than
16 said first resolution, said user command being received before said at least some images being
17 saved are overwritten in said buffer, said user command being responsive to a decision made by a
18 human user, said decision being made after said electronic optical sensing apparatus captures said
19 at least some images being saved

20 ~~wherein said step of saving at least some images from said buffer in a persistent form~~
21 ~~comprises saving a user-selectable portion of the contents of said buffer memory in a persistent~~
22 ~~form at said second resolution, said user-selectable portion being potentially less than all of the~~
23 ~~buffer contents; and~~

24 ~~wherein said user-selectable portion of the contents of said buffer is determined by playing~~
25 ~~the contents of said buffer back to the user on a display of said camera, and receiving a user~~
26 ~~selection corresponding to a beginning frame to be saved in said persistent form.~~

1 35. (Previously Presented) The program product of claim 34, wherein each video frame
2 captured by said optical sensing apparatus is stored in said buffer during a respective temporary
3 period.

1 36. (Previously Presented) The program product of claim 34, wherein every Nth video frame
2 captured by said optical sensing apparatus is stored in said buffer during a respective temporary
3 period, where $N > 1$.

1 37. (Previously Presented) The program product of claim 34, wherein said buffer is organized
2 as at least one circular buffer in which the oldest stored frame is overwritten with a new frame
3 when the new frame is captured.

38-39. (Cancelled)

1 40. (Currently Amended) The program product of claim 34, wherein said step of saving at
2 least some images ~~from~~ being temporarily stored in said buffer in a persistent form comprises
3 saving the entire contents of said buffer memory in a persistent form at said second resolution.

1 41. (New) The program product of claim 34, wherein said step of saving at least some images
2 being temporarily stored in said buffer in a persistent form comprises saving a user-selectable
3 portion of the contents of said buffer memory in a persistent form at said second resolution, said
4 user-selectable portion being potentially less than all of the buffer contents.

1 42. (New) The program product of claim 34, wherein the step of saving at least some images
2 being temporarily stored in said buffer comprises:

3 responsive to a first command issued by said human user, freezing at least a portion of said
4 buffer containing said at least some images; and

5 responsive to a second command issued by said human user, displaying images of said at
6 least some images frozen in said buffer and receiving a user selection of at least one individual
7 image of said at least some images frozen in said buffer for saving in a storage medium separate
8 from said buffer.

1 43. (New) The method for operating an electronic camera apparatus of claim 16, wherein said
2 step of saving at least some images being temporarily stored in said buffer in a persistent form
3 comprises saving a user-selectable portion of the contents of said buffer memory in a persistent
4 form at said second resolution, said user-selectable portion being potentially less than all of the
5 buffer contents.

1 44. (New) The method for operating an electronic camera apparatus of claim 16, wherein the
2 step of saving said at least one recently captured image comprises:

3 responsive to a first command issued by said human user, freezing at least a portion of said
4 buffer containing said at least some of said optical images; and

5 responsive to a second command issued by said human user, displaying images of said at
6 least some of said optical images frozen in said buffer and receiving a user selection of at least
7 one individual image of said frozen optical images for saving in a storage medium separate from
8 said buffer.

1 45. (New) An electronic camera apparatus, comprising:
2 an electronic optical sensing apparatus, said electronic optical sensing apparatus sensing
3 optical images and converting sensed images to an electronic signal;
4 a buffer memory;
5 a video storage medium interface for storing video images captured by said optical sensing
6 apparatus on a storage medium; and
7 a controller which operates said electronic camera apparatus in at least one mode, said at
8 least one mode including a first mode wherein said controller concurrently: (a) causes said video
9 storage medium interface to store motion video captured by said optical sensing apparatus on a
10 video storage medium at a first resolution, and (b) temporarily stores sequential images captured
11 by said optical sensing apparatus in said buffer memory, said controller continuously overwriting
12 images temporarily stored in said buffer with subsequently captured images while operating in
13 said first mode;
14 wherein said controller, responsive to a user command, saves at least one recently captured
15 image being temporarily stored in said buffer memory in a persistent form at a second resolution,
16 said second resolution being finer than said first resolution, said user command being received
17 before said at least one recently captured image is overwritten in said buffer, said user command
18 being responsive to a decision made by a human user, said decision being made after said
19 electronic optical sensing apparatus captures said at least one recently captured image being
20 saved.

1 46. (New) The electronic camera apparatus of claim 45, wherein said electronic optical
2 sensing apparatus, said buffer memory, said video storage medium and said controller are
3 mounted within a common hand-held camera housing.

1 47. (New) The electronic camera apparatus of claim 45,
2 wherein said controller, responsive to a first user command, freezes at least a portion of
3 said buffer containing said plurality of sequential images; and
4 wherein said controller, responsive to a second user command, displays images of said
5 plurality of sequential images frozen in said buffer and receives a user selection of at least one
6 individual image of said plurality of sequential images for saving in a storage medium separate
7 from said buffer.

1 48. (New) The electronic camera apparatus of claim 45, wherein said controller operating in
2 said first mode stores each video frame captured by said optical sensing apparatus in said buffer
3 during a respective temporary period.

1 49. (New) The electronic camera apparatus of claim 45, wherein said controller operating in
2 said first mode stores every Nth video frame captured by said optical sensing apparatus in said
3 buffer during a respective temporary period, N being a user-selectable parameter, wherein at least
4 one user-selectable value of N is greater than 1.

1 50. (New) The electronic camera apparatus of claim 45, wherein said buffer is organized as at
2 least one circular buffer in which the oldest stored image is overwritten with a new image when
3 the new image is captured.

1 51. (New) The electronic camera apparatus of claim 50, wherein said buffer is organized as a
2 plurality of circular buffers, each circular buffer storing images at a respective resolution, a first
3 circular buffer storing images at a higher resolution than a second circular buffer.

1 52. (New) The electronic camera apparatus of claim 45, wherein said controller, responsive to
2 said user command, saves a fixed portion of the contents of said buffer memory in a persistent
3 form at said second resolution.

1 53. (New) The electronic camera apparatus of claim 45, wherein said controller, responsive to
2 said user command, saves a user-selectable portion of the contents of said buffer memory in a
3 persistent form at said second resolution, said user-selectable portion being potentially less than
4 all of the buffer contents.